

Listing of Claims:

1. (Currently Amended) A by-product elimination device used in a power generation system, comprising ~~at least any one of:~~

(a) a fuel pack provided with a fuel charged portion having a power generation fuel ~~having~~ comprising a liquid or gas containing hydrogen charged therein; ~~and~~

(b) a power generation module which ~~can be attached or detached~~ is attachable/detachable from said fuel pack to receive said power generation fuel from said fuel charged portion, the module including and which includes (i) a reforming portion which transforms said power generation fuel supplied from said fuel charged portion into a first gas containing hydrogen gas and carbon dioxide as main components, and (ii) a fuel cell which generates ~~an~~ electrical energy by using the hydrogen gas contained in said first gas ~~[[,]]~~ ; and

~~said by-product elimination device further comprising~~

(c) an absorbent charged portion in said fuel pack which receives said first gas from said reforming portion, and which selectively absorbs carbon dioxide contained in said first gas fed from said reforming portion and feeds a second gas whose carbon dioxide concentration is ~~lowered by~~ lower than a carbon dioxide concentration of said first gas to said fuel cell.

2. (Currently Amended) The by-product elimination device according to claim 1, wherein ~~the~~ a volumetric capacity of said absorbent charged portion is increased as carbon dioxide is absorbed.

3. (Currently Amended) The by-product elimination device according to claim 1, wherein said absorbent charged portion ~~has~~ comprises one of calcium oxide ~~or~~ and calcium hydroxide.

4. (Currently Amended) The by-product elimination device according to claim 1, wherein said absorbent charged portion includes (i) a carbon dioxide absorption portion, and (ii) a calcium carbonate collection portion for containing calcium carbonate generated in said carbon dioxide absorption portion.

5. (Original) The by-product elimination device according to claim 4, wherein said carbon dioxide absorption portion supplies to said calcium carbonate collection portion calcium carbonate generated as carbon dioxide is absorbed.

6. (Currently Amended) The by-product elimination device according to claim 4, wherein said carbon dioxide absorption portion contains one of calcium oxide ~~or~~ and calcium hydroxide.

7. (Original) The by-product elimination device according to claim 1, wherein said absorbent charged portion includes a carbon dioxide absorption portion, a calcium carbonate collection portion which collects calcium carbonate generated in said carbon dioxide absorption portion, and a water absorption portion which
5 absorbs water generated in said carbon dioxide absorption portion.

8. (Original) The by-product elimination device according to claim 7, wherein said water absorption portion supplies to said carbon dioxide absorption portion calcium hydroxide generated as water is absorbed.

9. (Original) The by-product elimination device according to claim 8, wherein said carbon dioxide absorption portion supplies to said calcium carbonate collection portion calcium carbonate generated as carbon dioxide is absorbed.

10. (Original) The by-product elimination device according to claim 7, wherein said water absorption portion contains calcium oxide.

11. (Original) The by-product elimination device according to claim 7, said carbon dioxide absorption portion contains calcium hydroxide.

12. (Currently Amended) The by-product elimination device according to claim 1, wherein a reforming reaction in said reforming portion includes (i) a first reaction which generates hydrogen gas, and (ii) a second reaction which reforms carbon monoxide generated ~~with~~ in said first reaction into carbon dioxide, and

wherein said absorbent charged portion ~~can~~ is adapted to absorb carbon dioxide generated by the second reaction.

13. (Currently Amended) The by-product elimination device according to claim 1, wherein said reforming portion ~~has~~ comprises at least one of a vapor reforming reaction portion, an aqueous shift reaction portion, and a selected oxidation reaction portion.

14. (Currently Amended) The by-product elimination device according to claim 1, wherein said reforming portion ~~has~~ comprises a vapor reforming reaction portion and an aqueous shift reaction portion, and said absorbent charged portion is connected

5 to said vapor reforming reaction portion and said aqueous shift reaction portion.

15. (Original) The by-product elimination device according to claim 1, further comprising a water collection portion which selectively collects at least water among discharged substances discharged from said fuel cell.

16. (Currently Amended) The by-product elimination device according to claim 1, wherein said by-product elimination device includes a water collection portion which selectively collects at least water among discharged substances discharged from said fuel
5 cell, and

wherein said fuel charged portion, said absorbent charged portion and said water collection portion are separated from one another.

17. (Currently Amended) The by-product elimination device according to claim 1, ~~wherein said absorbent charged portion is arranged in said fuel pack, and said by-product elimination device has~~ further comprising (i) a path from said power
5 generation module used for feeding the first gas fed from said reforming portion to said fuel pack ~~from said power generation~~

~~module,~~ and (ii) a path from said fuel pack used for feeding the second gas fed from said absorbent charged portion to said power generation module ~~from said fuel pack~~.

18. (Currently Amended) The by-product elimination device according to claim 1, wherein said reforming portion generates the first gas from said power generation fuel by an exothermic reaction, and said absorbent charged portion is ~~set so as~~ adapted to supply heat generated by absorbing carbon dioxide to said reforming portion.

19. (Original) A fuel pack which can be connected to a power generation module without restraint, comprising:

a fuel charged portion which contains a fuel to be supplied to a reforming portion which generates hydrogen and carbon dioxide from said fuel, and whose volumetric capacity is reduced as carbon dioxide is generated in said reforming portion; and

a carbon dioxide absorption portion which absorbs carbon dioxide generated by said reforming portion and whose volumetric capacity is increased as carbon dioxide is generated in said reforming portion.

20. (Original) A fuel pack which can be connected to a power generation module without restraint, comprising:

5 a fuel charged portion which contains a fuel to be supplied to a reforming portion which generates mixed gas containing hydrogen and a first by-product from said fuel, and whose volumetric capacity is reduced as said first by-product is generated in said reforming portion;

10 a first by-product absorption portion which generates a second by-product by absorbing said first by-product from said mixed gas, and whose volumetric capacity is increased as said first by-product is generated in said reforming portion; and

15 a second by-product absorption portion which absorbs said second by-product in a mixture including said hydrogen and said second by-product fed from said first by-product absorption portion.

21. (Original) The fuel pack according to claim 20, which further comprises a third by-product absorption portion which absorbs a third by-product from a fuel cell which generates said third by-product as power is generated by using the hydrogen fed from said second by-product absorption portion.

22. (Original) The fuel pack according to claim 20, wherein said first by-product absorption portion and said second by-product absorption portion are connected to each other, and said third by-product absorption portion is separated from said first by-product absorption portion and said second by-product absorption portion.

23. (Original) A fuel pack which can be connected to a power generation module without restraint, comprising:

a fuel charged portion which contains a fuel to be supplied to a reforming portion which generates mixed gas including hydrogen and a first by-product from said fuel, and whose volumetric capacity is reduced as said first by-product is generated in said reforming portion;

a first by-product absorption portion which absorbs said first by-product from said mixed gas, and whose volumetric capacity is increased as said first by-product is generated in said reforming portion; and

a second by-product absorption portion which collects a second by-product from a fuel cell which generates power by using said hydrogen fed from said first by-product absorption portion, and whose volumetric capacity is increased as power is generated in said fuel cell.

24. (New) A by-product elimination device adapted to be used in a power generation system, comprising:

a fuel pack provided with a fuel charged portion having a power generation fuel comprising a liquid or gas containing hydrogen charged therein;

a power generation module which is attachable/detachable to said fuel pack, and which includes a fuel cell which generates electrical energy using said fuel supplied from said fuel pack; and

an absorbent charged portion in said fuel pack which selectively absorbs carbon dioxide received from said power generation module.